

Clinical Notes.

ORTHOPÆDIC NEUROSES AND MYELITIS.

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CASE I.—Tailor-legged deformity of several weeks' standing, without joint or bone lesion; relieved in three days by a fly blister and poultices to the spine.

Eugene L., a hearty, robust-looking boy, eight years of age, was referred to the hospital,¹ Aug. 23, 1881, by the directors of the Mt. Sinai Hospital. The boy had but recently arrived from Texas, at the hands of two merchants who, out of sympathy, had assumed the responsibility of that long journey. They came armed with a long certificate and petition from the town officers and citizens. The father was a Jewish clergyman, and friends had borne the boy's expense to the Hot Springs, and no relief had come. In the petition sent, it was affirmed that the boy had fallen and broken his back. The history, however, as obtained from the boy, was that he had a fall of no very great moment in the early part of April; that two weeks later he began to experience a sense of pain or weariness in his back, and that two weeks after this the lower limbs began to "draw a little" as he walked. No tremors and no fever. Thinks that when the night would be cold his limbs would twitch a little. On going to sleep, he was told, the contractions at first would yield, but on awaking in the morning the limbs would "draw again." It was so difficult to get his pantaloons off that no change in this vestment had been made for a fortnight or more. They bore him into the office and set him down on a sofa—his limbs being locked, as it were, in the

¹ Hospital for the Ruptured and Crippled.

exact position tailors assume on the bench. I saw immediately, from the facility with which he moved his body and spine, that there was neither "broken back" nor spinal caries. There was apparently no elevation of temperature. The spinal column was to all appearances normal. Considerable suasion had to be employed to get him to make the attempt even of removing his clothing. It was a task. The legs were acutely flexed, the left with its calf lying against the posterior surface of the right, and its heel resting in the perineum; the right was strongly flexed, yet did not impinge upon corresponding parts by reason of the other leg being in the way. The joints presented nothing abnormal to the eye; the functions not tested, however, because of the tonic spasm of the leg flexors. The muscles of both lower extremities were firm to one's feel, and there did not appear to be any wasting. No disturbances of sensation. The more force employed to overcome the contracted muscles, the greater the resistance. The pain was so great that the attempt was not persisted in. The bowels reported as regular, and no difficulty in micturition.

The spinous processes and transverse processes too of the vertebræ included between the fourth dorsal and coccyx were very tender—those in mid-dorsal being the most sensitive.

There was also a moderate degree of hyperæsthesia about the pelvis anteriorly and posteriorly. The heart-sounds were normal. No electrical examination made.

On the evening of the 23d, the day of his admission, a blister $2\frac{1}{2} \times 6$ inches was applied to the dorso-lumbar spine. Through the night, while he was asleep, his limbs were found almost as much deformed as by day. Poultices were begun next morning, and on the night of the 25th the heel was found at least eight inches from the perineum. On the morning of the 26th, after getting into a rolling-chair, he began to remove his foot from the seat of the chair. By eight o'clock he had both heels on the upper round of the chair; by nine, both were six inches lower, on the little foot-board. By noon he voluntarily extended the right leg to 180° , the left to 135° .

In the afternoon he stood up by a table, and took a step or two.

On the 27th, next day, it was recorded that the improvement continued and that it was very difficult to keep him in a rolling-chair.

On the 30th there remained a small area of spinal tenderness, and the blistering was renewed, the same process as before being resorted to.

On the 4th of Sept. and on the 8th I have notes of gaining strength, etc., but on the 10th all contraction disappeared, and on the 11th he was very active, only a slight halt being observable. This limp was an object of a little concern, and careful examinations were made without satisfactorily explaining it.

By the 14th of Oct. this lameness had nearly disappeared. It was found on further examination that the left calf was a half inch smaller than the right, and this fact—probably a fact before he was lame at all—was seized upon as furnishing a clue to this unpleasant remnant of a brilliant recovery. I made it explain a localized myelitis in the anterior column. As there was a little dorsal tenderness yet remaining, a third blister was applied, and electricity was applied daily to the calf-group.

Nov. 1st he was finally discharged, and soon thereafter returned to his home. It was very hard to detect any lameness. The atrophy had not progressed; the faradic reaction was normal; there were no joint symptoms: the case was cured.

CASE 2.—*Hysterical joint, left hip; lameness four months; then inability to walk six weeks; cured in six weeks.* Katie F., æt. nineteen, was admitted to the hospital June 22, 1880. She came from one of the towns on the Hudson, and was on crutches when she appeared for treatment. The family history could not be obtained; the patient reported, that as a child she was delicate, but had been in fair health up to January, 1880, when she had a fall, which was soon followed by great pain in the knee. This shifted to the hip two weeks later, and she walked lame, suffering much from fatigue. For the past six weeks she has not been able to walk unless with crutches. She is very restless nights, and has lost flesh.

She stands resting all of her weight on the right limb, the left foot not even touching the floor. The left limb is advanced and rotated outward, while the pelvis is tilted to this side. No infiltration about the joint; thighs equal in size. The pain is referred to the left loin, the spine, and anterior surface of the knee. Absence of joint-tenderness, but muscular tenderness, with pain on pressure along sciatic nerve. The thigh can be almost completely flexed without pain or resistance. Indeed all the movements are normal, save extension, which aggravates the pain. There is formication about the sole and ankle and a moderate degree of dorso-lumbar tenderness.

Joint disease was excluded in the diagnosis, and a fly blister was applied to the spine the same night. There was a little relief after

two or three days, but nothing very marked until the morning of July 2d—ten days after admission,—when she got up from a rolling-chair and walked across the floor with very little lameness and very little exertion. The pain had completely subsided and the deformity no longer existed. She was then put upon cod-liver oil and an iron mixture.

By Aug. 1st all signs of disease had disappeared, and on Sept. 3d she was discharged. No signs present, and general health excellent. She continued free from lameness or any symptoms until about two or three months ago. She had become a little anæmic, and complained of pain about her hip again. She came to the hospital, had similar treatment, and returned to her home in two or three weeks fully restored. She had, in fact, no joint-symptoms at this last visit, July 18, 1882.

Notes of three cases of myelitis. The following cases were interesting to me, although the first two came under my observation after convalescence had begun. The first had a peculiar alopecia areata occur after apparent recovery, and from its location I was not able to explain satisfactorily the connection between it and the original lesion.

The second case seemed to have exacerbations, most likely brought on by injudicious exercise. The notes, however, taken from our hospital case-books will be more instructive I think than any remarks I can make.

CASE 1.—Wm. G. M.,¹ æt. thirty-five, applied at the hospital outdoor department for advice, March 23, 1880. The family history gives on mother's side a case of insanity with suicide; otherwise it is clear. The patient is a mechanic, and has always been regarded as a healthy man prior to the summer of 1879. Then he began to have what were recognized as bilious attacks, relieved generally very promptly by a brisk purge. In October, however, of that year, after one of these attacks he suffered for two weeks with shooting pains in both lower limbs below the knees, and in the left forearm. He tired very easily. He never had such pains in his life; could n't describe them and could n't localize very well. There was nothing like formication, and there was no hyperæsthesia.

This annoyance increased, and on November 1st he took to his bed. After ten days a high fever came on without vomiting and without delirium, but with complete subsidence of the pain.

¹ I am especially indebted to Dr. Jas. Knight, to whom this case was referred, for the opportunity of making my observations.—G.

The bowels were constipated ; the bladder was not affected. He had about this time a distinct girdle-sensation around the loins, not attended with pain of any severity. There was, he says, absolute loss of sensation in both hands, symmetrically distributed, and partial loss in the feet and legs. There was only the faintest co-ordinating power left in the hands and feet. The confinement to bed extended over a period of five weeks, and he was unable to feed himself or to help himself in any way. If he attempted to read, the letters seemed blurred. He had no double vision. At the end of the five weeks on getting out of bed he was unable to stand by a chair even. Three or four weeks elapsed before he could do this. Then he began to improve rather rapidly, and was soon walking around by a chair, though he experienced much difficulty in co-ordinating his movements. Going down stairs was peculiarly difficult, while he mounted stairs with more facility. He was unable for several weeks to dress himself, and was very awkward in buttoning clothing. He made more rapid progress toward recovery in the lower limbs. Has never had any tremor. Even now drops things often, he says, simply from weakness.

About two months ago began to experience a feeling of formication in the lower extremities, perhaps an hour in the course of the day. Feels, he says, "as though bugs were creeping over me," and the sensation always descends, never ascends. His general health is now good, and he is well nourished. There is no history of rheumatism, and there is no heart-murmur. The spine, examined by hot sponges, pressure, and so forth, gives negative results. No signs about penis or groin of venereal disease. He had, he says, a gonorrhœa eight years ago, and one four years later, which was followed by falling of the moustache. There is now an area of coppery discoloration of good size about the umbilicus, and it is reported as following a poultice.

The power in hands (flexors) about one half the normal power. The extensors are weaker still. No inco-ordination in the upper extremities.

Pronators are also very weak, symmetrically so. There has been a little nocturnal incontinence, but this has been corrected. The lower extremities are not ataxic and seem normal in power. He came to the city, referred as a case of locomotor ataxia. He is advised to employ electricity, if practicable ; but is assured, however, that he will recover in time. He returned encouraged to his home in the country, and was not seen again at the hospital

until Dec. 2, 1881, when he called to report himself as relieved, with the exception of a degree of anæsthesia at the tips of his fingers, a dryness about lips in damp weather, and a plaque of alopecia areata in left parieto-occipital region four and a half by two and a half inches in size. He reports that he had a daily application of faradism to the forearms and hands from March to July, 1880, with no other treatment. He recovered the ability to read in the summer after going up into the Catskill Mountains. A year later a bald spot appeared over the chin, left side; his hair began to fall in the temporal region, same side, and the baldness extended to the occipital region. The alopecia occurred in the distribution of the mental branches of the inferior dental cutaneous branches of the auriculo-temporal and of the occipitales major and minor.

CASE 2.—A gentleman, aged twenty-nine, consulted me early in August for a loss of power in the forearms and feet. I found him very unsteady in his gait, falling easily, yet able to walk fairly with a heavy cane. He was very averse to going down stairs, mounted stairs much better, but with quite an effort. There was diminution apparently in the reflexes, and very good reaction in all the muscles of the lower extremities to a strong faradic current as used from the static machine. There was a moderate degree of anæsthesia of the legs. The grasp was feeble, and there was inability to extend the thumb of either hand. It was with great difficulty that he could extend the little finger. There was diminution of sexual appetite. He was thin and generally "broken up," to use his pet expression. I could find no spinal tenderness, and no deformity of any kind. In giving me his history he denied venereal disease, and in fact I could not satisfy myself that any existed.

On the father's side of the house there was rheumatic gout—a matter of some pride; on the mother's side, nothing.

The patient had been healthy and active from infancy to February, 1882, with the exception of a subacute pleurisy in 1874.

On the 14th of February last, after a drive of fifteen miles through a heavy rain, he was very chilly. This was in South America. The chill was followed by profuse perspiration during the night, and in the morning there was high fever which did not abate for several days. On its abatement he realized a feeling of numbness in the legs and feet, particularly the latter. This he thought simply the result of lying abed so long, and attached to it no importance until, a few days after being out of bed, he at-

tempted to go horseback riding, when he found himself unable to jump into the saddle. There was no appreciable loss of power, he thought, in the upper extremities. He was lifted into the saddle, and rode slowly a distance of about a mile, but found great difficulty in retaining his seat, and was taken to bed again after this effort, where he was confined for two weeks. The treatment was anti-rheumatic.

On getting up he was unable to go about without speedy fatigue, and was quite unable to ride horseback—a favorite pastime. He was from this time forth very weak in the knees. The loss of power increased slowly, and in the latter part of April he was unable to use either upper or lower extremities, and was compelled to take to his bed for the third time, four weeks passing before he was able to sit up in a carriage. There was great irritability of the muscles of the calf, with almost complete loss of sensation in legs and feet.

There was much severe and prolonged headache, but no pain in the spine. The power returned very slowly, and was about equally slow in upper and lower extremities. He lost flesh rapidly. In June had another relapse more severe than the preceding, and during this attack he lost the power of speech at one time for twenty-six hours. Finally, rallying, he set sail for New York in the beginning of July, it being necessary to carry him to the ship. Improvement on board was very marked. He had begun taking potass. iodide gr. x, t. i. d.

When I saw him I ordered the iodide in gr. xxx. doses t. i. d., and applied static electricity daily. His body was simply charged on the insulating table from the negative pole, and the electrode from the positive pole was applied in rapid succession to the spine and to the paretic groups of muscles. This treatment was continued four weeks, with improvement, almost daily. The iodide was continued in the doses above mentioned until the middle of September, when the patient regarded himself as cured. At present writing he has regained normal power, has gained thirty-four pounds in weight, and can walk at a fair rate of speed without any fatigue. A few days since he walked ten miles without any inconvenience. The hands are equally strong, and his restoration seems complete.

CASE 3.—Frank W., æt. four, was admitted to hospital Oct. 18, 1881. The family history was devoid of interest. Five months prior to his admission there was observed a waddling gait, and two months later the feet dragged as he walked. A history is given

of monthly or bimonthly febrile attacks of two or three days' standing, accompanied by constipation, loss of appetite, and slightly jaundiced skin. There are neither, however, periodicity nor regularity in these attacks. He lives in a malarial locality, and many in the house are reported as often sick with malarial fever.

The patient is thin and badly nourished, unable to stand alone or even when assisted, unable to extend the wrists or the fingers, and the paralysis is about symmetrical.

There is marked diminution of power in the flexors of the fingers and adductors of the thumbs. The same is true of both flexors and extensors of the forearms. The thigh flexors and extensors act with about one fifth the normal power. The ab- and ad-ductors seem equally deficient in power. He cannot extend in the slightest degree either leg, and indeed the power of flexion is very much diminished. The floors of the left are not so weak as those of the right side. Is quite unable to flex or extend the feet or the toes. There appears to be some hyperæsthesia of both limbs, and they feel cold to one's hand. Reflexes at knee and foot, both sides, abolished. The prepuce is rather long, and there are some agglutinations about corona glandis, easily overcome, but the act is attended with a little pain.

Measurements taken throughout, and the limbs found equal in size. There does not seem to be any atrophy.

The muscles do not react to faradism, at least to a current which is almost intolerable. He cries so that a thorough galvanic examination is postponed, and by way of treatment a mild current is ordered for daily application. Ergot is ordered in half-drachm doses, and a mixture of iron and quinine as a tonic. He is very helpless, and it is not until Nov. 12th that any improvement is discernible. We find very fair contraction to the galvanic current, normal formula, in the flexors of the wrist.

Nov. 14th.—Reaction in anterior tibials and extensors of wrist, both sides, to a strong galvanic current of the normal formula.

Nov. 24th.—The same muscles respond now to a feeble current, those on left side contracting more vigorously. No reaction whatever to a strong faradic current. He continued to improve, and by Jan. 5, 1882, he was walking a few steps alone, and was feeding himself without any difficulty. On the 7th he walked thirty feet without much of an effort. On Feb. 15th the reflexes were about normal, and on the 19th his recovery was nearly complete. Owing to a bronchitis he was retained in the hospital until April 6th, when he was discharged cured.

He is quite robust in appearance, is able to lift a large chair above his head, can walk and run with ease on a level or up and down stairs, and the muscles feel firm and normally consistent.

It requires a strong faradic current to get responses. He continued well, making a visit or two to the hospital after his discharge, and on May 30th the father sent me a note saying that the little fellow had died on the 17th inst. of "congestion of the lungs" following scarlatina. Of course there was no report of an autopsy.